# BIOSCIENCES UNDER THE MICROSCOPE: WHICH BIOSCIENCE IS FOR YOU?

University of Salford MANCHESTER

Cutting-edge bioscience research helps to solve some of the biggest challenges we face today – from developing new cures for diseases and health conditions, to combating climate change and loss of biodiversity. Find out more about each specialist branch of bioscience.

## **CHEMICAL SCIENCES**

**BIOCHEMISTRY** explores the chemical processes related to all living organisms.

#### **Biochemists**

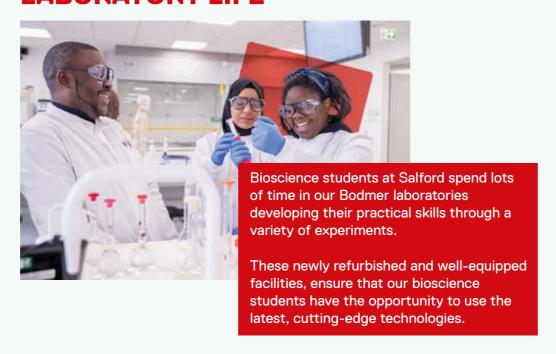
- Find new cures for infectious diseases and hereditary conditions
- / Solve crimes with forensic investigation
- / Work to reduce global poverty and hunger

**PHARMACEUTICAL SCIENCE** incorporates aspects of chemistry, biochemistry and toxicology.

#### Pharmaceutical scientists:

- / Work to transform the future of healthcare
- / Study the design and development of drugs
- / Develop cures for new diseases and heath problems
- / Find innovative ways to manufacture and administer drugs

### **LABORATORY LIFE**



## **ZOOLOGY & MARINE BIOLOGY**

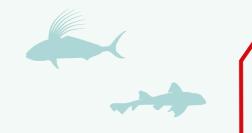
**ZOOLOGY** focuses on the physiology, evolution and behaviour of animals.

#### Zoologists:

- / Preserve natural habitats and protect endangered species
- / Study animal communication and communities
- / Research animal immune responses to infectious diseases
- Develop a better understanding of how all beings function and interact with the world around us







MARINE BIOLOGY looks at all aspects of marine organisms and ecosystems.

#### Marine biologists:

- Study the behaviour of marine life and its interaction with the environment
- / Measure the impact of human activity on coral reefs and other marine organisms
- Track marine animals to implement conservation strategies
- / Preserve ocean environments and ecosystems

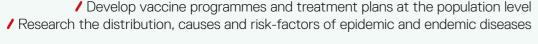


## **BIOMEDICINE**

**HUMAN BIOLOGY AND INFECTIOUS DISEASES** applies biological science to a research setting.

#### Human biologists and infectious disease specialists:

Study human physiology, immunology, and infectious diseases
 Problem-solve a variety of health problems and infections
 Develop vaccine programmes and treatment plans at the population level









#### Biomedical scientists:

/ Support the diagnosis and treatment of disease
/ Identify micro-organisms and other factors causing diseases
/ Monitor the effectiveness and side-effects of vaccines
/ Study hereditary variations in genes and their effects



## **BIOLOGY**



**BIOLOGY** encompasses the study of all living organisms.

#### Biologists study everything:

- / From microorganisms for understanding diseases
- ✓ To whole ecosystems for mitigating environmental problems
- / From nanotechnology for diagnosing cancer
- To global public health programmes for tackling pandemics





